REMARKS

The Invention

The present invention relates to a network protector and, more specifically, to a network protector having an arc path structured to direct arc gasses away from the network protector electrical components. The network protector consists of a circuit breaker and additional electrical components such as a control relay. The network protector circuit breaker typically has three sets of separable contacts and an arc chute for each set of separable contacts. The invention provides an arc path assembly having a hollow member with at least one open end that is in fluid communication with each arc chute and which extends from the circuit breaker to a point beyond the network protector frame assembly. The hollow member directs arc gasses out of the arc chutes and away from the other electrical components. As such, the other electrical components may be mounted immediately adjacent to the circuit breaker.

The hollow member is, preferably, made from a non-conductive material. As such, any residual energy that is not extinguished in the arc chute will dissipate in the arc path assembly. Additionally, the hollow member is, preferably, an elongated member having a longitudinal axis that is generally perpendicular to the axis of each arc chute. As such, the flow path through which the arc gasses travel turns about ninety degrees. This turn in the flow path allows the arc gas particulate matter to collect on the non-conductive hollow member, thereby reducing the chance that deposits of arc gas particulate matter will create a flow path for electricity between the arc chute and other areas of the network protector.

Status of the Claims

Claims 1-20 are pending in the application.

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Young* (U.S. Patent No. 5,414,584) in view of *Rosen et al.* (U.S. Patent No. 5,304,761) and further in view of *Wilkie, II et al.* (U.S. Patent No. 6,215,654).

Claims 1-20; Rejected Under 35 U.S.C. § 103(a)

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Young* (U.S. Patent No. 5,414,584) in view of *Rosen et al.* (U.S. Patent No. 5,304,761) and further in view of *Wilkie, II et al.* (U.S. Patent No. 6,215,653). In rejecting the Applicants' prior arguments

regarding this combination of references, the Examiner noted the argument that none of the cited art discloses a network protector. The Examiner further stated that phrase "network protector" was only set forth in the preamble and not in the body of the claims. The Examiner did not assert that the cited art disclosed a network protector. Accordingly, the Claims 1-10 have been amended to recite a "network protector" in the body of the claims. Further, to clarify the nature of this invention, the independent claims have been to recite that a gap exists between the enclosure and the frame assembly and that the vented gas from the arc chute is exhausted into the gap.

Turning to the cited references, it is again noted that *Young* discloses a molded case circuit breaker disposed in an enclosure having a plurality of vents. Within the *Young* enclosure is a gas chute structured to direct arc gasses away from the molded case circuit breaker towards the vents. The gas chute is a U-shaped member that forms a generally closed passage when coupled to the enclosure. A flame arrestor and screen are disposed in the gas chute to protect the vents from damage from the arc gasses. The stated purpose of the *Young* device is to exhaust the circuit breaker enclosure. Col. 2, lines 6-14.

Young does not disclose a "network protector" as recited in the amended claims. That is, as set forth in the specification, "a network protector consists of a circuit breaker and additional electrical components such as a control relay." Page 1, lines 20-21. Further, "[t]he circuit breaker and other components are typically mounted on a frame assembly." Page 1, lines 23-24. *Young* discloses a single circuit breaker disposed in an enclosure. As such, *Young* does not disclose a "frame assembly (38)" as asserted by the Examiner. Reference number 38 in *Young* is the "case" for the circuit breaker 14. See, Col. 3, lines 22-27. As a molded case is not a "frame assembly" *Young* cannot disclose a "hollow member extending beyond the frame assembly" as asserted by the Examiner. Further, the single circuit breaker disclosed in *Young* is not a "plurality of electrical components" as recited in the present claims.

Rosen discloses another molded case circuit breaker having a plurality of separable contacts, an arc chute for each set of contacts, and a gas deflector structured to redirect the direction of arc gasses. *Rosen* does not disclose a network protector, an enclosure, a frame assembly, or a hollow member. However, the gas deflector when combined with a lug cover and the molded case of the circuit breaker does form a generally enclosed passage. One of the stated purposes of the *Rosen* invention is to direct arc gasses away from the line terminals, which, even

after the contacts are separated, are still in electrical communication with a current source, toward the load terminals, which, after the contacts are separated are not coupled to a current source. Col. 2, lines 22-25.

The *Wilkie* reference discloses a switchgear assembly having an enclosure with a number of cells for electrical components, such as circuit breakers. The enclosure includes an arc shield structured to deflect arc gasses exhausted from the circuit breakers into the enclosure. *Wilkie* does not disclose a network protector or a hollow member.

Generally, none of the references cited by the Examiner disclose a network protector. As set forth in the specification, a network protector is an electrical apparatus structured to be operatively coupled to a secondary network, such as a large building, and a power grid. Due to this specific purpose, the network protector includes a circuit breaker as well as other electrical components. *Young* discloses a single electrical component, the circuit breaker, and not a "plurality of electrical components" as recited in the claims. Similarly, *Rosen* discloses a single circuit breaker rather than a plurality of electrical components. *Rosen* also fails to disclose any type of housing assembly. *Wilkie* allows for multiple circuit breakers, but does not disclose any other type of electrical components that could constitute a "network protector."

Given that no cited reference discloses a network protector, no cited reference has the elements of a network protector. These elements include, but are not limited to a "circuit breaker," a "frame assembly" and an "enclosure." Each of these elements is, by definition, a separate element. For example, as recited in the claims of the present application, the arc path assembly is structured to vent arc gasses beyond the frame assembly and into the enclosure. As such, the "frame assembly" and the "enclosure" must be separate elements. Thus, an element cannot serve two purposes as stated by the Examiner. That is, the *Young* circuit breaker cannot be both the "circuit breaker" and the "frame assembly." As such, the Examiner has failed to cite a single reference, or a combination of references, that disclose a "circuit breaker," a "plurality of electrical components," a "frame assembly" and an "enclosure" as recited in the claims.

Further, given that no cited reference discloses a network protector, the cited references are non-analogous art. That is, as set forth in MPEP §2141.01(a), "[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention is concerned." *Id., citing, In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir

1992). Analogous fields in the electrical arts are not broad categories. For example, it has been held that similar, or even identical components, may be used in different manners and that art that relates to a component in one environment may not be used as a prior art reference under 35 U.S.C. § 103(a) in relation to the same type of component used in a different environment. That is, as set forth in MPEP §2141.01(a) V., a reference relating to single in-line memory modules (SIMMs) for industrial use was held not to be analogous prior art for an invention relating to SIMMS in personal computers. *Id., citing, Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993). Thus, while the art cited by the Examiner includes certain electrical components such as circuit breakers and enclosures, by failing to disclose the remaining elements of a network protector, the art is actually non-analogous art.

In this application, the Examiner has assumed, for example, that any enclosure for a circuit breaker is analogous to all other enclosures for circuit breakers. This is not, in fact, true. This application specifically notes housings for network protectors are found in "dust-proof or moisture-proof housings which are disposed in subterranean passageways in large metropolitan areas." Page 1, lines 16-19. As such, the environment of an enclosure for a network protector is different than the environment of an enclosure for a typical circuit breaker. To be an analogous reference under 35 U.S.C. § 103(a), and more specifically, MPEP §2141.01(a) V., the Examiner must show that the enclosure in the reference is used in a similar environment as the enclosure disclosed in the present application. The Examiner has failed to do so. Similar arguments can be made for each of the other elements of the network protector, *e.g.* the circuit breaker.

Additionally, the Examiner has combined art that actually teaches away from each other. That is, the stated purpose of the *Young* device is to exhaust the circuit breaker enclosure. Conversely, one of the stated purposes of the *Rosen* invention is to direct arc gasses away from the line terminals and toward the load terminals. It would be impossible to direct the arc gas toward both the load terminals and exhaust the gas from an enclosure. As such, these inventions are unrelated to each other and would not be combined by one skilled in the art.

Moreover, the Examiner has not demonstrated where any of these references suggest such a combination. That is, as stated in, *In re Geiger*, 815 F.2d 686, 2 U.S.P.Q.2d 1276 (Fed. Cir. 1987), "obviousness cannot be established by combining teachings of the prior art to produce the claimed invention, *absent some teaching, suggestion, or incentive supporting combination*" (*emphasis added*). Put another way, "the mere fact that disclosures or teachings of

the prior art can be retrospectively combined for the purpose of evaluating obviousness/nonobviousness issue does not make the combination set forth in the invention obvious, *unless the art also suggested the desirability of the combination ....*" *Rite-Hite Corp. v Kelly Co.*, 629 F.Supp. 1042, 231 U.S.P.Q. 161, *aff'd* 819 F.2d 1120, 2 U.S.P.Q.2d 1915 (E.D. Wis. 1986) (emphasis added). Similarly, the court in, *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991), stated that "both the suggestion [to make the claimed apparatus] and the reasonable expectation of success must be found in the prior art, not in the Applicants' disclosure." Here, the Examiner has stated a "motivation" for combining the references but has not identified where in the references this motivation is set forth. However, under the law, if there is no suggestion that the cited references should be combined, the combination of these references would not be obvious to one skilled in the art.

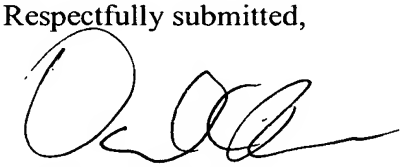
Accordingly, the Examiner has failed to set forth a single analogous reference, or a proper combination of references, that disclose an arc path assembly, or a network protector having an arc path assembly, as recited in the claims. That is, the Examiner has failed to set forth a single analogous reference, or a proper combination of references, that disclose an arc path assembly having a hollow member extending past a network protector frame assembly wherein arc gasses pass through the hollow member into the network protector enclosure as recited in each independent claim. Accordingly, the rejections of Claims 1 and 11 set forth in paragraphs 4 and 5 of the February 8, 2006 Office Action, as well as the rejections of each dependent claim set forth in subsequent paragraphs, should be withdrawn.

Given that the cited art does not disclose a network protector and that Claims 1-10, as amended, recite a network protector, Claims 1-10 are allowable over the cited art. Further, given that none of the cited art discloses the venting of arc gas to a location between a frame assembly and an enclosure, Claims 1-20 are allowable over the cited art.

CONCLUSION

In view of the remarks above, Applicants respectfully submit that the application is in proper form for issuance of a Notice of Allowance and such action is requested at an early date.

Respectfully submitted,



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